

ABSTRACT

COMMUNICATION METHODS AND APPARATUS

In a wireless communications system, transceivers transmit short bursts to a base station, which determines timing corrections from the time of receipt of the burst and transmits the timing corrections to the respective transceivers. In one aspect, the base station indicates to the transceivers a plurality of time slots, each transceiver selects one of the time slots at random, formats a burst including an indicator of the selected time slot and transmits the burst in that slot. In another aspect, the base station transmits to each transceiver a timing uncertainty value, which determines how the timing correction will be modified by the transceiver as the interval since last receiving a timing correction increases. Data bursts are transmitted in a format comprising a first unique word, a content field and a second unique word, in that order. The bursts are transmitted in a TDMA channel format which can accommodate both short and long bursts in a block format of constant periodicity.

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[Figure 6a]